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==== RELEASE 25 ====

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===== FUNCTIONAL CHANGES =====

NORMALIZED RECEIVER PASSBAND INDICATION: When the filter passband is normalized for the main or sub receiver, its passband graphic acquires two small "wings". (Same as the K3, etc.) To normalize the passband, hold the FILTER knob (NORM function).

DIGOUT1 MENU ENTRY: DIGOUT1 is an open-drain output that can be used to control external equipment. It is stored per-band. On the 160-6 meter bands it is also stored separately per-antenna if a KAT4 ATU is installed. The default is OFF (floating), while ON = pull the line to ground (0 V). Max load current in the ON state is 15 mA; max. load voltage in the OFF state is 25 V DC. The menu entry shows/changes the DIGOUT1 setting on the present band (and antenna if 160-6 m).

SELECTABLE DATE FORMAT: The desired date format (EU or US) can now be selected using the DATE/TIME set controls. To access this, first tap in the date/time/status area (above the "?" Button on the LCD), then hold the DATA/TIME "Set" button. MM/DD/YY or DD/MM/YY format can be selected independent of the other controls in this window.

LINE OUT RIGHT-CHANNEL AUDIO (SUB RX) EQUALS LEFT CHANNEL (MAIN) WHEN SUB IS OFF.

3 dB RECEIVER GAIN ADDED TO BOTH RECEIVERS WHEN SPLITTER IS IN: When the sub RX is on and sharing the same antenna as the main RX, we now add 3 dB of IF (DSP) gain to compensate for the loss of the 3 dB splitter.

TX INHIBIT CHANGES: The TX Inhibit icon now continuously reflects the state of the TX INH signal (ACC jack, pin 7) rather than only during transmit. Also, when MENU:TX Inhibit is set to OFF, pin 7 correctly outputs a logic high (5 V) at all times.

RX ANT OUT ON BASIC K4: The RX ANT OUT jack can now be used on a basic K4 (one without the KRX4 2nd RX module) in both the SUB RX ON and OFF conditions. Previously, the sub RX icons and controls were not reflecting the fact that, on a basic K4, the main and sub receivers always share the same antenna. This in turn was preventing the sub RX from being configured properly for RX ANT OUT usage.

===== BUG FIXES =====

SUB RX GAIN NOW SAME AS MAIN RX: Previously, the same signal injected into both receivers would produce a signal level 3 to 6 dB higher in the sub RX (as indicated by both the

S-meter and panadapter). This was due to an incorrect ADC gain setting in the sub.

EXTERNAL MONITOR STUCK ON ELECRAFT LOGO: The external monitor should no longer freeze on a logo screen after a display mode change.

LOSS OF QSK SETTING ON MESSAGE PLAY CANCEL: Fixed.

A/B REVERSE CONTROL NOW ONLY SWAPS VFO FREQUENCIES: Previously, A/B reverse ("REV" switch) swapped all settings of VFOs A and B. Swapping only the frequencies makes this operation much faster.

ESSB MODE AND SSB/SSB BANDWIDTHS SAVED: These settings are now correctly saved/restored across power-downs.

REAR-PANEL MIC BIAS SHUTOFF FIXED: Rear panel mic bias is no longer being turned off when rear panel headphones are plugged in/unplugged.

CW AUTO-TUNE WORKS IN CW-REVERSE MODE.

HIGH-SIGNAL PANADAPTER ARTIFACTS ELIMINATED: Under some high-signal conditions, a comb pattern or "Christmas tree" effect may have been overlaid on spectral peaks. This was due to signal leakage in the FFT/decimation algorithm. The effect has now been completely eliminated.

OVERALL DATA FLOW STABILITY IMPROVED: Previously, in very rare cases, the panadapter may have stopped updating due to an issue with memory allocation.

MULTIPLE IP ADDRESS PROBLEM: Corrected a situation where the radio could claim to have two separate IP addresses.

===== FOR SOFTWARE DEVELOPERS =====

REMOTE CONTROL COMMAND IMPROVEMENTS:

- DO; command added
- WM; command added. See also ME0027; (Wattmeter Cal in MENU)
- RG; response bug fix
- CP; response bug fix
- GT\$; response bug fix
  
- REF; no longer case sensitive
- TEF; no longer case sensitive
  
- IS\$9xxx; now supported as FP\$~; alias

SD; command improvements  
    \*Added SD1; SD0; setter for setting QSK  
    \*Added SD; getter for current mode  
    \*Added SDm; getter for provided mode

VG; command improvements  
    \*Added VG; getter for current mode  
    \*Added VGm; getter for provided mode

VX; command improvements  
    \*Added VX1; VX0; setter VOX for current mode  
    \*Added VX; getter for current mode  
    \*Added VXm; getter for provided mode

SM; command bug fixes  
    \*SM; now properly returns 0000-0015 in K30; meta-mode.  
    \*SM; now properly returns 0000-0021 in K31; meta-mode.  
    \*SM; returns 00-42 in K41; meta-mode.  
    \*Note, for SM; auto-information; set AI4;SM1;